GOVERNMENT OF INDIA
AGRICULTURE
LOK SABHA

UNSTARRED QUESTION NO:1311
ANSWERED ON:16.11.2010
EFFECT OF CLIMATE CHANGE ON CROPS
Kataria Shri Lal Chand

Will the Minister of AGRICULTURE be pleased to state:

(a) whether the Government has prepared any action plan for conducting a study on the adverse effect of climate change on crops;

(b) if so, the details thereof;

(c) whether the Government has given any grant to the Indian Council of Agricultural Research for the said study;

(d) if so, the details thereof;

(e) whether the climate change in affecting the time/month of sowing and harvesting of crops across the country; and

(f) if so, the steps taken by the Government in this regard?

Answer

MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE AND MINISTER OF STATE IN THE MINISTRY OF CONSUMER AFFAIRS, FOOD AND PUBLIC DISTRIBUTION (PROF. K.V. THOMAS)

(a) to (d): Government of India, Ministry of Agriculture, Department of Agricultural Research & Education (DARE) has launched a Central Sector Scheme on National Initiative on Climate Resilient Agriculture (NICRA) during XI Five Year Plan with the objective to study the impact of climate change on agriculture covering crops, livestock and fisheries to climatic variability and climate change through development and application of improved production and risk management technologies etc. with an allocation of Rs.350.00 crore as per break-up given below:-

Sub-Heads/Interventions	Amount (Rs. in crore)
Contingency	137.50
Travelling Allowances	3.50
Human Resource Development	9.00
Equipment/Fabrication/Infrastructures	90.00
Furniture and Fixtures	1.00
Information Technology	8.00
Works	6.00
Technology Demonstration on Farmer's Field	70.00
Competitive/Sponsored Projects	25.00
Total	350.00

(e) & (f): The assessment of climate change and its impact on Indian Agriculture is an on- going process .Though there are no definite and conclusive evidence of the impact of climate change on productivity, the studies conducted under National Network Project on Climate Change (NNPCC) indicate inter annual monsoon rainfall variability and slight change in mean annual temperature, which may affect agricultural production in future. The study also reveals that increase in temperature reduces crop duration, increase crop respiration rates, affects the equilibrium between crops and pests, hastens nutrient mineralization in soils, decreases fertilizer use efficiencies, and increases evapo-transpiration. The increase in Carbon Dioxide is beneficial for several crops such as wheat, rice, legumes and oilseeds. However, crops such as maize, jowar, bajra and sugarcane do not benefit from increase in Carbon Dioxide.

With a view to enhance the agricultural productivity, sustaining foodgrain production and to address the various issues relating to climate change adaptation and mitigation in the agriculture and food sectors, Government of India, Ministry of Agriculture has intensified the implementation of various programmes/schemes, namely; Macro Management of Agriculture (MMA), National Food Security Mission (NFSM), National Horticulture Mission (NHM), Rashtriya Krishi Vikas Yojana (RKVY), Micro Irrigation (MI), etc.